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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,457	11/21/2003	Jean-Pierre Mao	245496US41X DIV	8066
22850 7590 10/12/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C., 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SEFCHECK, GREGORY B	
			ART UNIT 2619	PAPER NUMBER
			NOTIFICATION DATE 10/12/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/717,457

Applicant(s)

MAO, JEAN-PIERRE

Examiner

Gregory B. Sefcheck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/988,527.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. This application appears to be a division of Application No. 09/988,527, filed 11/20/2001. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The divisional application should set forth the portion of the earlier disclosure that is germane to the invention as claimed in the divisional application.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the reference sign(s) for the timing diagrams of Fig. 1, 2.

3. Figures 1-3 and 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated, as stated in the description of the drawings on pg. 5-6 of the specification. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 12 is objected to because of the following informalities:

The phrase "wherein means for packeting packet said asynchronous data during a packeting time" is confusing. The Examiner recommends changing this phrase to - - wherein said packeting of said asynchronous data is performed during a packeting time - - in order to clarify this limitation of claim 12.

Appropriate correction is required.

5. Claim 15 and 18 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 15 and 18, which depend from claims 12 and 16, respectively, recite the same limitation as in claims 12 and 16: packeting time is greater than transmission time.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 13 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant-regards as the invention.

In claims 13 and 19, the terms "so short" and "about equal" are relative terms that render the claims indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Neither the claims nor the specification (pg. 5) definitely set forth the relationship between packeting time and transmission time to support claims 13 and 19.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Robins et al. (US006430184B1), hereafter Robins.

- Regarding Claims 1-6, and 9,

Robins discloses a system for communicating data packet flows, including Asynchronous Transfer Mode (ATM; Abstract; Col. 1, line 27; claim 1,9 - system for processing and transmitting packets of asynchronous data).

Referring to Figs. 1-3, Robins discloses Queue Manager (QM) 30 for managing the packeting and storing of data packets in a plurality of buffers 35/36, where data packets are made up of a plurality of data cells (QM managing the packeting of multiple packets of multiple flows constitutes a plurality of packeting modules; Col. 5, lines 42-51; Col. 6, lines 5 and 25-29; claim 1 - a plurality of packeting modules configured to packet asynchronous data; claim 3 - a battery connected to said plurality of packeting modules, said at least one battery being configured to store said asynchronous data; claim 9 - means for packeting asynchronous data during a packeting time).

Robins further discloses Forwarding Engine (FE) 40 provides instructions (request/message) to the QM for packeting of flows based upon received headers. Processed data is output to Quad PHY 2 (Fig. 1, 73) based upon the instructions from FE (FE together with Quad PHY 2 is considered to be the claimed "message composition module; Col. 7, lines 8-13; claim 1 - a message composition module connected to said plurality of packeting modules; claim 1,2 - message composition module is configured to send a request for a packet to each packeting module of said plurality of packeting modules; claim 4 - message composition module is configured to receive a plurality of packets from said plurality of packeting modules; claim 5 -

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message composition module is configured to receive said plurality of packets one after another in a predetermined order; claim 9 - means for receiving a message from a message composition module).

Robins discloses cells associated with the same circuit ID are reorganized by link-lists into packets, where Robins also discloses a "cut-through" mode of operation in which the FE instructs packeting of cells to be stopped and the data that has been processed is transmitted before a complete packet of cells is processed, such that portions of a packet may be transmitted while other portions are still being received (Col. 17, lines 25-45; Col 16, lines 17-64; claim 1,2 - each packeting module is configured to stop packeting asynchronous data in response to said request and to send to said message composition module a packet of asynchronous data formed prior to receiving said request; claim 9 - means for stopping/interrupting said means for packeting in response to said message; claim 9 - means for transmitting a plurality of packets, each packet of said plurality being formed by said means for packeting prior to an interruption by said means for interrupting; claim 6,9 - composing a message comprising said plurality of packets).

Regarding Claims 7, 8, 10, and 11,

Robins discloses a system for communicating data packet flows that meets all limitations of the parent claims.

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Robins discloses that packets that have been processed are output to Quad PHY 2 (Fig. 1, 73) in the appropriate LAN/WAN protocol format for the transmission line (Col. 1, lines 23-26; Col. 5, lines 60-65; claim 7,10 - formatting module connected to said message composition module and configured to format said message; claim 8,11 - output module configured to transmit said message on a transmission line).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robins in view of Kato et al. (US005544336A), hereafter Kato.

- Regarding Claims 12-16, 18, and 19,

Robins discloses a system for communicating data packet flows, including Asynchronous Transfer Mode (ATM; Abstract; Col. 1, line 27; claim 16 - system for processing and transmitting packets of asynchronous data).

Referring to Figs. 1-3, Robins discloses Queue Manager (QM) 30 for managing the packeting and storing of data packets in a plurality of buffers 35/36, where data packets are made up of a plurality of data cells (QM managing the packeting of multiple packets of multiple flows constitutes a plurality of packeting modules; Col. 5, lines 42-

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51; Col. 6, lines 5 and 25-29; claim 16 - means for packeting asynchronous data during a packeting time).

Robins further discloses Forwarding Engine (FE) 40 (message composition module) that provides instructions (request/message) to the QM for packeting of flows based upon received headers (Col. 7, lines 8-13; claim 16 - means for requesting a packet).

Robins discloses cells associated with the same circuit ID are reorganized by link-lists into packets, where Robins also discloses a "cut-through" mode of operation in which the FE instructs packeting of cells to be stopped and the data that has been processed is transmitted before a complete packet of cells is processed, such that portions of a packet may be transmitted while other portions are still being received (Col. 17, lines 25-45; Col 16, lines 17-64; claim 16 - means for stopping/interrupting said means for packeting in response to said message; claim 16 - composing a message comprising said plurality of packets).

Robins discloses cut-through mode causes packeting to be ended and data is passed to Quad PHY 2 (Fig. 1, 73), such that portions of a packet may be transmitted while other portions are still being received (Col. 17, lines 42-45). However, Robins does not explicitly disclose the time for packeting (TP) approaches the total time (TT) for transmitting of data by minimizing the time for transmitting.

Kato discloses that a parallel processing system can reduce overhead caused by the data transmission in a system. When multiple processing units operate

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synchronously, data can be transmitted while other data is received and processed (Abstract; claim 12,15,16,18 – said packeting of said asynchronous data is performed during a packeting time greater than half of a total time for packeting said asynchronous data and for transmitting said message; claim 13,19 - time for said transmitting said message is so short compared to said packeting time that said total time is about equal to said packeting time; claim 14 - packeting time is equal to a cycle time for a transmission line over which said formatted message is transmitted).

It would have been obvious to one of ordinary skill in the art at the time of the invention to maximize the transmission cycle in Robins such that the time for packeting approaches the total time for transmitting of data. This is accomplished by minimizing the time for transmitting, as shown by Kato, since data can be transmitted at the same time as other data is being received and processed, so that the transmission time is counted as zero.

- Regarding Claims 17,

Robins discloses a system for communicating data packet flows that meets all limitations of the parent claims.

Robins discloses that packets that have been processed are output to Quad PHY 2 (Fig. 1, 73) in the appropriate LAN/WAN protocol format for the transmission line (Col. 1, lines 23-26; Col. 5, lines 60-65; claim 17 - formatting module connected to said message composition module and configured to format said message; claim 17 – output module configured to transmit said message on a transmission line).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Gregory Sefcheck
Patent Examiner
10-5-2007